

X. *On the classification of the Australian Pyralidina.*

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[Read August 5th, 1885.]

THIS paper includes the remaining families of the *Pyralidina*, viz., *Pterophoridae*, *Alucitidae*, *Hydrocampidae*, and *Oxychirotidae*, together with such additional species of the previous families as have been obtained since their publication; and therefore completes for the present the results of my investigations on the Australian species of this group.

The thirteen families into which I have divided the group (including throughout the world at present some 2500 described species, a number which will probably be at least quadrupled), appear to me to be mainly collateral branches descended from a group of extinct forms. I think that the *Phycididae* may be regarded as a development of the *Galleriadae*, the *Botydidæ* of the *Scopariadae*, and the *Hydrocampidae* and *Musotimidæ* of the *Pyralididæ*. With these exceptions it does not appear to me that any of the families can be regarded as immediately derivable from any other known existing forms. The *Pyralididæ* and *Epipaschiadae* are referable to a common ancestor very little removed; and the same may be said of the *Scopariadae* and *Crambidae*; whilst the *Galleriadae* come from somewhere between these two presumptive ancestors. The *Tineodidæ*, *Oxychirotidae*, *Pterophoridae*, and *Alucitidae* are relics of a once more extensive section of the group, now reduced to a fragmentary condition, and approaching most nearly to the *Crambidae* and *Scopariadae*. Of course no linear order can express these affinities fully, but I think the following arrangement the most convenient:—*Epipaschiadae*, *Pyralididæ*, *Musotimidæ*, *Hydrocampidae*, *Botydidæ*, *Scopariadae*, *Crambidae*, *Galleriadae*, *Phycididae*, *Tineodidæ*, *Oxychirotidae*, *Pterophoridae*, *Alucitidae*.

The original type-form of the *Pyralidina* may be

considered to have had in the fore wings vein 1 basally furcate (the furcation soon being lost), and veins 8 and 9 stalked; in the hind wings 1 *a*, 1 *b*, and 1 *c* all present, 6 only approximated towards 7 at base (soon becoming stalked with 7), and 8 free, but approximated to 7 in middle, and soon constantly anastomosing with 7.

The family *Tincodidæ*, referred to above, is formed for the reception of the peculiar genus *Tincodes*, of which the generic characters have been given. The family diagnosis will be as follows:—Maxillary palpi triangularly dilated; fore wings with 8 and 9 stalked, 7 separate; hind wings with 5 and 6 from transverse vein, rather nearer together than to 4 or 7, 8 anastomosing at a point with 7, lower median naked.

PTEROPHORIDÆ.

The characters of this and the following family, and of the genera included in them, are given in the paper read with this, which will be published early in next year's volume, and need not be repeated here.

COSMOCLOSTIS, *Meyr.*

Cosmoclostis aglaodesma, *Meyr.*

Sydney, New South Wales.

TRICHOPTILUS, *Wlsm.*

Trichoptilus scythrodes, *Meyr.*

Sydney, New South Wales; Port Lincoln, South Australia.

Trichoptilus ccrarnodes, *Meyr.*

Sydney, New South Wales; Port Lincoln, South Australia.

Trichoptilus xerodes, *Meyr.*

Toowoomba, Queensland; Bathurst, New South Wales; Adelaide, Wirrabara, and Port Lincoln, South Australia.

PLATYPTILIA, *Hb.*

Platyptilia falcatalis, *Walk.*

Platyptilus falcatalis, *Walk.*, 931; *Meyr.*, *Trans. N. Z. Inst.*, 1884, 128; *P. reptetalis*, *Walk.*, 931.

Christchurch to Invercargill, New Zealand.

Platyptilia emissalis, Walk.*Platyptilus emissalis*, Walk., 930.

♂, ♀, 17—22 mm. Head, thorax, and abdomen fuscous or dark fuscous, mixed with whitish, face usually suffused with reddish ochreous; frontal tuft short, conical. Palpi light ochreous, irrorated with reddish ochreous. Antennæ fuscous. Legs fuscous, tarsal joints broadly whitish towards base. Fore wings cleft from two-thirds, segments rather broad, 1st segment slightly dilated, hind margin subconcave, oblique, 2nd segment rather strongly dilated, hind margin gently rounded, oblique; ochreous-brown, sometimes suffused with fuscous, and more or less mixed with whitish scales, sometimes forming oblique striæ; a small dark fuscous spot on submedian fold at one-fourth, and another beneath costa before middle, both sometimes obsolete; a triangular dark fuscous blotch on costa at two-thirds, apex resting on base of cleft, anterior side suffused, posterior side tolerably defined; a rather broad dark fuscous fascia (sometimes not much darker than ground colour) crossing both segments above base, posteriorly bounded by a straight whitish line; hind margin suffusedly darker; costal cilia dark fuscous, between blotches and before apex white; rest of cilia whitish, on hind margin with a sharp black basal line, on inner margin with a small spot of black scales at two-thirds. Hind wings cleft firstly from middle, secondly from near base, 1st segment gradually dilated throughout, apex equilateral-triangular, 2nd segment moderately dilated, hind margin straight, very oblique, 3rd segment linear; fuscous; cilia light greyish, with a short black line at base on apex of 1st segment, 3rd segment with some small short black scales scattered along inner margin, especially towards base, and three or four inconspicuous fine black hair-scales at two-thirds.

Southern specimens are more deeply coloured and somewhat larger than northern.

Toowoomba, Queensland; Sydney, Bathurst, Glen Innes, and Mount Kosciusko (up to 6000 feet), New South Wales; Mount Wellington, Tasmania. Common from September to January.

Platyptilia Haasti, Feld.

Platyptilus Haasti, Feld., Reis. Nov., pl. exl., 58;
Meyr., Trans. N. Z. Inst., 1884, 128.

Distributed throughout New Zealand.

Platyptilia heliastis, Meyr.

Platyptilia heliastis, Meyr., Trans. N. Z. Inst., 1884,
129.

Castle Hill, New Zealand.

ACIPTILIA, Hb.

Aciptilia innotatalis, Walk.

Pterophorus innotatalis, Walk., 945; Meyr., Trans.
N. Z. Inst., 1884, 124.

This species is easily separated from the larger but very similar *A. tetradactyla* by the absence of dark stripes on the legs.

Masterton to Invercargill, New Zealand.

Aciptilia furcatalis, Walk.

Aciptilus furcatalis, Walk., 950; Feld., Reis. Nov., pl.
exl., 52; Meyr., Trans. N. Z. Inst., 1884, 123.

Cambridge to Otira River, New Zealand.

Aciptilia lycosema, Meyr.

Aciptilia lycosema, Meyr., Trans. N. Z. Inst., 1884, 124.

Wellington to Dunedin, New Zealand.

Aciptilia monospilalis, Walk.

Aciptilus monospilalis, Walk., 950; Meyr., Trans.
N. Z. Inst., 1884, 124; *A. patruelis*, Feld., Reis.
Nov., pl. exl., 56.

Distributed throughout New Zealand.

Aciptilia aptalis, Walk.

Aciptilus aptalis, Walk., 950.

♂, ♀, 16—20 mm. Head, palpi, antennæ, thorax, abdomen, and legs yellowish white. Fore wings cleft from middle, segments rather narrow, gradually finely attenuated; very pale whitish yellowish, becoming white towards base of costa; some fine irregularly scattered blackish speckles, sometimes nearly obsolete, but usually forming a transverse mark at base of cleft, two dots on

costa before and after middle of 1st segment, a dot on inner margin of 1st segment towards apex, three dots on inner margin of 2nd segment, a dot at apex of each segment, and sometimes one or two others; cilia whitish. Hind wings cleft firstly from before middle, secondly from near base, segments linear; white; cilia white; vein 1*b* strongly pectinated towards base.

Nearest allied to *A. monospilalis*; probably also related to *A. malacensis*, Z.

Larva pale green (undescribed); feeds on *Astrotriche floccosa* (*Araliaceae*), eating the leaf into holes from beneath. Pupa exposed, appressed to lower surface of leaf; rather thinly clothed with curved bristly whitish hairs; pale green, with dorsal and subdorsal rows of black dots.

Brisbane, Queensland; Sydney, New South Wales; George's Bay, Tasmania; from September to April, common amongst its food-plant; also occurs in the New Hebrides, Fiji, and Tonga.

Note.—In *A. innotatalis* veins 2 and 11 of the fore wings are both absent, as in *A. tetradactyla*, *A. spilo-dactyla*, and *A. pentadactyla*; in *A. furcatalis*, *A. lycosema*, *A. monospilalis*, and *A. aptalis* vein 11 is absent, but 2 is present; the oldest type of the genus, in which veins 2 and 11 are both present, as in *A. galactodactyla*, is not represented in this region. It may therefore be inferred that the genus did not originate here (but probably in Europe); but that its introduction into New Zealand dates back to a remote period: the single species found in Australia must be regarded as a straggler which has recently found its way thither from the Pacific Islands.

DOXOSTERES, *Meyr.*

Doxosteres canalis, Walk.

Pterophorus canalis, Walk., 948.

♂, ♀, 17—19 mm. Head and thorax brownish ochreous, suffusedly irrorated with white. Palpi ochreous, apex of 2nd joint white. Antennæ whitish grey. Abdomen ochreous, base and apex mixed with white. Legs white, anterior tibiæ striped with ochreous. Fore wings cleft from before two-thirds, 1st segment moderate, parallel-sided, hind margin subconcave, extremely oblique, 2nd segment somewhat narrower, slightly dilated, hind

margin slightly rounded, very oblique; light brownish ochreous, with irregularly scattered black and white scales, tending to form streaks along basal half of costa and submedian fold; an indistinct darker spot at base of cleft; cilia white, on inner and hind margins pale greyish ochreous except towards base, with two blackish basal dots on hind margin of each segment. Hind wings cleft firstly from two-fifths, secondly from near base, 1st segment tolerably narrow, spatulate, 2nd segment moderate, caudate, 3rd segment linear; fuscous; cilia pale greyish ochreous.

Duarina and Brisbane, Queensland; Sydney and Blackheath (3500 feet), New South Wales; Mount Graham and Wirrabara, South Australia; from September to November, and in February; rather common.

MIMESCOPTILUS, Wallgr.

Mimesoptilus orites, Meyr.

Mimesoptilus orites, Meyr., Trans. N. Z. Inst., 1884, 126.

Clinton, New Zealand.

Mimesoptilus lithoxestus, Meyr.

Mimesoptilus lithoxestus, Meyr., Trans. N. Z. Inst., 1884, 127.

Arthur's Pass, New Zealand.

Mimesoptilus charadrias, Meyr.

Mimesoptilus charadrias, Meyr., Trans. N. Z. Inst., 1884, 126.

Arthur's Pass, New Zealand.

Mimesoptilus celidotus, Meyr.

Lioptilus celidotus, Meyr., Trans. N. Z. Inst., 1884, 125.

Sydney and Mount Kosciusko (5000 feet), New South Wales; Christchurch and Lake Wakatipu, New Zealand; in December, January, and April.

Mimesoptilus phæonephes, Meyr.

Mount Wellington, Tasmania.

Mimeseoptilus leuconephes, Meyr.

Mount Kosciusko (4700 feet), New South Wales.

CENOLOBA, Wlsm.

Cenoloba oblitalis, Walk.*Pterophorus oblitalis*, Walk., 945; Wlsm., Ent. Mo. Mag., 1885, 176.

This species, said to be Australian, is unknown to me.

Oxyptilus cinctipedalis, Walk., 935; *Pterophorus diffusalis*, ib., 945; and *P. deprivalis*, ib., 946. These species I have not yet succeeded in identifying; nor can I speak with certainty of *P. tinctidactylus*, Newm.

ALUCITIDÆ.

ALUCITA, Z.

Alucita phricodes, Meyr.

Duaringa, Queensland; Sydney, New South Wales.

HYDROCAMPIDÆ.

Uncus in ♂ well-developed, complex. Fore wings with 10 often out of 8, rarely also 7. Hind wings with lower median not pectinated, 7 out of 6, 8 anastomosing with 7 beyond cell.

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|------|---|-------|----------------------|
| 1 a. | Vein 10 of fore wings rising out of 8 | | <i>Paraponyx</i> . |
| 1 b. | " " " " separate. | | |
| 2 a. | Labial palpi very long, straight | | <i>Schœnobius</i> . |
| 2 b. | " " " " moderate, generally arched. | | |
| 3 a. | Terminal joint of labial palpi acute | | <i>Anydraula</i> . |
| 3 b. | " " " " obtuse. | | |
| 4 a. | Veins 4 and 5 of hind wings stalked | | <i>Hydreuretis</i> . |
| 4 b. | " " " " separate | | <i>Scirpophaga</i> . |

ANYDRAULA, n. g.

Forehead vertical; ocelli present; tongue slender, developed. Antennæ two-thirds, in male moderately ciliated (1), above with angularly projecting scales at joints. Maxillary palpi moderate, loosely scaled. Labial palpi moderate, curved, obliquely ascending, 2nd joint beneath rough-haired or with a loose rough projecting tuft of scales towards apex, terminal joint shorter than 2nd, slender, pointed. Abdomen in male with valves strong, exerted, scaled;

uncus long, slender, curved, with a straight slender process from base beneath not reaching apex; claspers indicated by a slender spine. Posterior tibiæ with outer spurs half inner; anterior tarsi sometimes dilated with rough hairs. Fore wings with veins 8 and 9 stalked, 11 short. Hind wings with vein 7 absent (coincident with 8), 8 anastomosing shortly with 6 beyond cell.

Nearly allied to *Cataclysta*, which it resembles in appearance, but well distinguished by the presence of ocelli, the separation of vein 10 of the fore wings from 8, and the rough-haired 2nd joint of palpi.

Anydraula glycerialis, Walk.

Cataclysta glycerialis, Walk., 450.

♂, ♀, 15—18 mm. Head and thorax ochreous mixed with dark fuscous, sides of face, collar, and patagia except shoulders silvery white. Palpi dark fuscous mixed with yellowish, base and terminal joint white, 2nd joint beneath with loose apical tuft. Antennæ dark fuscous. Abdomen whitish ochreous, posteriorly paler. Legs ochreous whitish, anterior tibiæ and apex of tarsal joints suffusedly dark fuscous. Fore wings elongate-triangular, costa straight, posteriorly slightly arched, apex round-pointed, hind margin sinuate, oblique; silvery white; markings pale yellow-ochreous, strongly margined with dark grey; a streak along costa from base to three-fifths; a rather narrow fascia from middle of costa to one-fourth of inner margin; a moderate fascia from two-thirds of costa to middle of inner margin, much narrowed at extremities, posterior edge angularly projecting at one-third and three-fourths from costa; a rather narrow fascia from five-sixths of costa, bent inwards beneath costa, almost touching hind marginal fascia below middle, thence sending a sharp truncate angle inwards to near middle of second fascia, terminating in anal angle; a narrow fascia along hind margin; cilia white, tips grey. Hind wings silvery white; markings light yellow-ochreous, strongly margined with dark grey; a transverse dark grey mark in disc before middle; an irregular direct central fascia not reaching margins; a spot on inner margin below middle; a dark grey line near and parallel to anterior edge of hind marginal band; a moderate hind marginal band, attenuated above apex and to anal angle, containing a row of five confluent irregular deep black spots with bright brassy-metallic centres; cilia white, tips grey.

Sydney and Blackheath (3500 feet), New South Wales; Sale, Victoria; locally common, frequenting damp

ground in February and March, but not near water; the larva cannot therefore be aquatic.

Anydraula drusialis, Walk.

Cataclysta drusiensis, Walk., 450.

♂, 14 mm. Head, palpi, antennæ, thorax, and abdomen whitish ochreous; 2nd joint of palpi dark fuscous except towards apex. Legs whitish, anterior tarsi with three basal joints very broadly dilated with blackish scales; two small black tufts between posterior coxæ. Fore wings rather elongate-triangular, narrow at base, costa posteriorly slightly arched, apex rounded, hind margin somewhat bowed, oblique; silvery white, with ochreous-yellow markings, obscurely margined with dark fuscous; a small basal patch, bounded by a thick dark fuscous streak from one-fifth of costa to one-fifth of inner margin; a moderate fascia from two-fifths of costa to two-fifths of inner margin, anteriorly not dark-margined, produced along costa to join a second somewhat broader fascia from two-thirds of costa to anal angle, of which the anterior edge projects obscurely in middle; space between first and second fascia mixed with black scales, tending to form four irregular lines; a third narrower fascia from costa near apex, and a fourth hind marginal, both confluent with second towards anal angle, where they form a blotch, containing an elongate light shining grey spot; cilia pale grey, tips white. Hind wings silvery white; a fuscous spot on inner margin towards base; a moderate irregular ochreous-yellow fascia from below two-fifths of costa to anal angle, posteriorly dark-margined; two blackish lines at two-thirds parallel to hind margin, beneath bent downwards to anal angle, the second terminating in a golden metallic spot; space between these lines and anterior fascia mixed with black scales, tending to form lines on veins; an ochreous-yellow hind marginal fascia, preceded by a narrow band of thickly-strewn blackish scales, and containing four large subquadrate deep black spots, each including an irregular bluish-metallic spot; cilia with basal half grey, terminal half white.

Described from Fijian specimens, but I believe they do not differ from Australian.

Townsville, Queensland; also occurs in Borneo and Fiji.

PARAPONYX, *Hb.*

Forehead vertical; ocelli present; tongue developed. Antennæ two-thirds, in male shortly ciliated ($\frac{3}{8}$ — $\frac{3}{4}$), with angularly projecting scales at joints, at least towards apex. Maxillary palpi short, dilated with loose scales. Labial palpi moderate, curved, more or less ascending, 2nd joint loosely scaled or rough-haired beneath, terminal joint variable, obtuse or tolerably pointed. Abdomen in male with valves strong, exerted, scaled; uncus moderately long, slender, curved, with a somewhat upwards-curved nearly equally long but remote process from base beneath. Posterior tibiæ with outer spurs half inner. Fore wings with veins 9 and 10 out of 8, 11 moderate. Hind wings with veins 4 and 5 closely approximated or from a point, 7 out of 6 near origin, anastomosing with 8 from or near origin to $\frac{1}{2}$ — $\frac{3}{4}$.

A nearly cosmopolitan genus, of which the larvæ are probably all aquatic. Besides the species given below I have probably two others from Queensland, but the specimens are not in a condition to describe.

- 1 a. Hind wings with an annular discal spot *marmorea*.
 1 b. ,, without annular discal spot.
 2 a. Hind wings with a median line furcate above.
 3 a. Median line of hind wings thick *polydectalis*.
 3 b. ,, ,, ,, ,, slender *dicentra*.
 2 b. Hind wings without furcate median line.
 4 a. Hind wings with two parallel lines becoming
 blackish beneath *myina*.
 4 b. Hind wings without blackish lines.
 5 a. Fore wings clear white *decussalis*.
 5 b. Fore wings mostly suffused with light greyish
 fuscous *nitens*.

Paraponyx polydectalis, Walk.*Cataclysta polydectalis*, Walk., 451.

♂, ♀, 15—18 mm. Head white. Palpi with 2nd joint densely scaled, terminal joint two-thirds of 2nd, pointed; white, 2nd joint externally fuscous except towards apex. Antennæ ochreous-whitish. Thorax white, slightly mixed with ochreous, with a small blackish spot on middle of patagia, and two others more indistinct behind. Abdomen white, base of segments ochreous-tinged. Legs white, anterior tibiæ and apex of tarsal joints dark fuscous above. Fore wings elongate-triangular, costa almost straight, apex rounded, hind margin gently rounded, rather oblique;

snow-white, with light ochreous-yellow blackish-margined markings; base and costa to two-thirds tinged with pale ochreous, costal edge to two-thirds blackish; a small black spot in middle of base, and another midway between base and first line; first line narrow, curved, from before one-fourth of costa to one-fourth of inner margin, marked with a small black spot in middle; a small blackish longitudinal mark above middle beyond first line; an obliquely-placed oval white strongly black-margined spot in disc beyond middle; second line narrow, rather wider beneath, running from two-thirds of costa obliquely outwards to below middle, thence acutely curved inwards through lower edge of discal spot to middle of wing, and again rectangularly bent to inner margin, somewhat sinuate near costa and inner margin; a narrow hind marginal fascia, connecting with an elongate blotch on posterior third of inner margin; an irregular fascia near before this, broadest above middle, extremely attenuated opposite angle of second line; cilia grey-whitish, with a dark fuscous line. Hind wings snow-white, markings light ochreous-yellow, blackish-margined; a blackish transverse line near base, not reaching inner margin; a narrow blackish median fascia, separating above middle into two costal branches, the second curved outwards; a moderate fascia near before hind marginal fascia, touching it at both extremities; a narrow hind marginal fascia; cilia white, with a dark fuscous line, base marked with three small quadrate deep black spots above middle of hind margin.

♀. Fore wings mostly suffused with light ochreous, all markings indistinct, blackish markings obsolete except indistinct discal spot and the small spot on first line; hind wings as in male.

Distinguished from all others by the blackish furcate median fascia of hind wings, and the three black spots in cilia of hind margin.

Sydney, New South Wales; flying commonly over pools, from February to April; also from Fiji.

Paraponyx dicentra, n. s.

♂, ♀, 15—21 mm. Head, thorax, abdomen, and legs white. Antennæ whitish ochreous. Palpi with 2nd joint densely scaled, somewhat rough beneath, terminal joint about half 2nd, tolerably pointed; white, 2nd joint externally suffused with fuscous except towards apex. Fore wings very elongate-triangular, costa posteriorly slightly arched, apex rounded, hind margin obliquely rounded; snow-white, with light ochreous-yellow markings, irregularly and obscurely margined with dark fuscous, in female very

pale and indistinct; some scattered dark fuscous scales towards costa and base, sometimes forming a small spot near base in middle; an indistinct narrow transverse streak about one-third, parallel to hind margin, not reaching costa, containing a small irregular black spot in middle; an irregular fascia from costa at three-fourths, upper half slender, moderately curved outwards, thence tolerably straight to inner margin at two-thirds, lower half moderately broad; two small transversely placed blackish discal spots above angle of this, partially connected anteriorly so as to form a crescentic mark; a moderate irregular fascia at five-sixths, rather suddenly contracted at one-third and two-thirds; a blackish subterminal line near and parallel to hind margin, separated from a narrow hind marginal light ochreous-yellow unmarginated fascia by a white line; cilia whitish, with a blackish line interrupted into spots. Hind wings white; an indistinct blackish line near base; a fine blackish median line from middle of inner margin, above middle furcate and sending two branches to costa, second beyond middle, curved; a moderate irregular light ochreous-yellow fascia about three-fourths, irregularly blackish-margined, contracted towards costa, emitting a projection posteriorly above middle; subterminal line, hind marginal fascia, and cilia as in fore wings.

Readily known by the white ground colour, ochreous-yellow markings, double blackish discal spot of fore wings, and fine furcate median line of hind wings.

Duaringa, Queensland; sent down commonly by Mr. G. Barnard.

Paraponyx myina, n. s.

♂, 15—21 mm. Head, palpi, antennæ, thorax, and abdomen light greyish ochreous, irrorated with dark fuscous; palpi with 2nd joint broadly scaled, somewhat rough beneath, terminal joint about two-thirds of 2nd, thick, tolerably obtuse. Legs ochreous-whitish, anterior pair suffused above with dark fuscous. Fore wings very elongate-triangular, costa almost straight, apex rounded, hind margin obliquely rounded; pale greyish ochreous, irrorated with fuscous, with cloudy dark fuscous markings; a small spot in disc at one-fourth, connected with inner margin by a faint line; a small transverse blackish discal spot beyond middle; an indistinct line from two-thirds of costa to three-fifths of inner margin, projecting outwards in an irregular curve above middle, forming a small spot on costa, sometimes with an obscure yellowish spot below middle; a very ill-defined line at five-sixths; on these two lines are sometimes yellowish spots above middle; a fine slightly waved subterminal line; cilia pale greyish ochreous, with two partially

interrupted dark fuscous lines. Hind wings pale greyish ochreous, irrorated with fuscous, sometimes] whitish towards base; two parallel well-defined dark fuscous lines, second indistinct on upper half, from beyond middle of costa to middle of inner margin, with an irregularly rectangular angulation at one-third from costa subterminal line and cilia as in fore wings.

Very similar in general appearance to *P. hebraicalis*, Snell., which I have not seen; but, if the description and figure are accurate, *P. myina* is easily recognised by the characteristic median parallel lines of hind wings.

Duaringa, Queensland; six specimens sent by Mr. G. Barnard.

Paraponyx decussalis, Walk.

Zebronia decussalis, Walk., 481; *Z. medusalis*, ib., 486.

♂, ♀, 14—16 mm. Head, antennæ, thorax, abdomen, and legs white; anterior tibiæ and tarsi suffused interiorly with fuscous. Palpi with 2nd joint densely scaled, terminal joint nearly as long as 2nd, roughened with scales anteriorly, pointed; white, 2nd joint externally fuscous except towards apex. Fore wings elongate-triangular, costa almost straight, apex rounded, hind margin gently rounded, rather oblique; snow-white; costa somewhat sprinkled with ochreous towards base; two small round blackish spots placed transversely in disc at one-third, the upper posterior; a somewhat 8-shaped black discal spot beyond middle; a slender irregular light ochreous fascia from two-thirds of costa to two-thirds of inner margin, mixed with blackish on costa, from below costa to middle semicircularly curved outwards; a very irregular light ochreous fascia midway between this and hind margin, tolerably thick on upper half, very slender on lower; a waved dark fuscous line near and parallel to hind margin, connected with it by irregular fuscous scales on veins; cilia white. Hind wings white; a central light ochreous discal spot, hardly perceptibly connected with a short irregular line from middle of inner margin; a narrow irregular partially interrupted light ochreous fascia at three-fourths, tolerably parallel to hind margin; a waved dark fuscous line near hind margin; cilia white.

Shorter-winged and more neatly marked than the other Australian species.

Duaringa, Queensland; several specimens sent by Mr. G. Barnard; also occurs in Ceylon.

Paraponyx marmorata, n. s.

♀, 17—19 mm. Head, thorax, and abdomen fuscous, irrorated with whitish. Palpi with 2nd joint with long rough projecting hairs beneath, terminal joint short, pointed, partly concealed; dark fuscous mixed with whitish. Antennæ pale greyish ochreous. Legs whitish ochreous, anterior pair suffusedly spotted with dark fuscous on joints. Fore wings very elongate-triangular, costa posteriorly gently arched, apex rounded, hind margin obliquely rounded; ochreous, more or less entirely suffused with fuscous; a narrow curved whitish fascia before one-fourth; an obscure whitish dark-bordered line before middle, irregularly sinuate in disc; an indistinct whitish line from three-fourths of costa to beyond middle of inner margin, obscurely double in disc above middle, upper half strongly sinuate inwards, in middle rectangularly bent inwards to middle of disc, thence again rectangularly bent to inner margin; the narrow median space between this and preceding line more or less obscurely whitish, only distinctly white on a costal spot beyond first line, a subquadrate spot in angle of second line more yellow-ochreous; an irregular ill-defined white subterminal fascia, sinuate inwards at one-third and two-thirds; cilia grey-whitish, with two fuscous lines and a subbasal blackish line. Hind wings whitish, with fuscous markings; a small spot on inner margin near base; a larger subtriangular spot on middle of inner margin, posterior edge closely followed by a parallel line; an irregular roundish ochreous dark-margined discal spot; second line white, dark-margined, from two-thirds of costa to touch first line on inner margin, forming a rounded-angular projection outwards above middle; beyond second line ground colour fuscous, with an irregular whitish subterminal fascia, projecting inwards in middle to touch angle of second line; cilia as in fore wings.

Distinguished from all other species by the ochreous dark-margined discal spot of hind wings.

Duaringa, Queensland; Sydney, New South Wales; six specimens in February.

Paraponyx nitens, Butl.

Paraponyx nitens, Butl., Cist. Ent., ii., 556; *Hygraula nitens*, Meyr., Trans. N. Z. Inst., 1884, 122.

The genus *Hygraula* cannot be maintained; I failed at first to discover ocelli in this species, but afterwards proved their existence; they are usually concealed in the male, but tolerably distinct in the female.

Sydney, New South Wales; Melbourne, Victoria; Lake Alexandrina, South Australia; Hamilton to Lake Wakatipu, New Zealand; from November to March, rather common.

HYDREURETIS, n. g.

Forehead vertical; ocelli present; tongue short. Antennæ three-fourths, in male shortly ciliated ($\frac{1}{3}$), with projecting scales at apex of joints. Maxillary palpi moderate, loosely scaled. Labial palpi moderate, somewhat arched, somewhat ascending, 2nd joint roughly scaled, terminal joint moderate, cylindrical, obtuse, or pointed. Abdomen in male with uncus moderately long, strong, curved, with an upwards-curved shorter remote process from base beneath; valves strong, exerted, scaled. Posterior tibiæ with outer spurs somewhat more than half inner. Fore wings with veins 4 and 5 from a point or stalked, 8 and 9 stalked, 10 closely approximated to 9 towards base, 11 moderate. Hind wings with veins 4 and 5 stalked, 7 out of 6 near origin, 8 anastomosing with 7 from origin to two-thirds.

This genus is almost exactly intermediate between *Paraponyx* and *Schœnobius*, and doubtless forms the developmental connection between them. The larvæ are, I believe, aquatic and case-bearing.

Hydreuretis euryscia, n. s.

♂, 23 mm. Head, thorax, and abdomen white. Palpi with terminal joint as long as 2nd, rather slender, pointed; whitish, 2nd joint grey. Antennæ grey. Legs whitish, anterior and middle pair suffused with grey. Fore wings very elongate-triangular, costa almost straight, faintly sinuate, apex rounded, hind margin tolerably straight, rather oblique; white; veins indistinctly indicated with pale fuscous; costal edge slenderly fuscous; upper and lower medians and submedian fold marked by strong cloudy dark fuscous streaks from base to middle of disc; a suffused dark fuscous fascia at one-fourth, extending from upper median to inner margin; a narrow transverse dark fuscous discal spot; a dark fuscous fascia from five-sixths of costa to middle of inner margin, two-thirds somewhat curved outwards, slender and subdentate on upper half, moderately broad on lower half; a narrow dark fuscous fascia from costa before apex to inner margin at three-fourths, gradually dilated beneath, confluent at both extremities with a narrow hind marginal fascia; cilia whitish. Hind wings white; a cloudy fuscous spot towards middle of disc; an indistinct fuscous

streak from apex rather near hind margin, becoming obsolete below middle; an indistinct fuscous line near and parallel to hind margin; cilia white.

Readily distinguished from the following species by the white head and thorax, pointed palpi, and nearly obsolete markings of hind wings.

Sale, Victoria; one specimen taken by Dr. Lucas.

Hydreuretis tullialis, Walk.

Hydrocampa tullialis, Walk., 462.

♂, 17—21 mm.; ♀, 25—26 mm. Head, palpi, and thorax ochreous-brown, sometimes irrorated with dark fuscous. Antennæ fuscous. Abdomen varying from whitish to ochreous. Legs white, anterior pair internally suffused with fuscous. Fore wings very elongate-triangular, in female extremely elongate, costa very slightly arched, apex obtuse, hind margin tolerably straight, rather oblique; ochreous-brown or fuscous, sometimes irrorated or suffused with dark fuscous; an indistinct white suffusion in male forming bands before and beyond middle, not reaching margins, in female absent; a slender, sometimes almost obliterated, white dark-margined line from five-sixths of costa to three-fourths of inner margin, forming a small spot on inner margin, irregularly sinuate inwards on lower half; a similar nearly straight line near hind margin; cilia pale fuscous, base white spotted with blackish. Hind wings white; a cloudy irregular fuscous streak from two-thirds of costa to middle of inner margin, in male more or less obsolete, in female suffused towards base beneath; a more defined fuscous or dark fuscous streak at three-fourths, parallel to hind margin; a narrow pale ochreous hind marginal fascia, finely dark-margined; cilia white, with basal dark fuscous dots on veins.

Variable in depth of colouring.

Sydney, New South Wales; in March and April, at lamps and over pools.

SCHENOBIUS, Dup.

Forehead with conically projecting scales; ocelli present; tongue very short or obsolete. Antennæ in male two-thirds, in female less than one-half, in male tolerably stout, moderately ciliated. Maxillary palpi moderate, triangularly dilated with scales. Labial palpi very long, straight, porrected, clothed with dense loosely dilated scales, broadest in middle, terminal joint not distinct.

Abdomen in male with valves moderate, scaled, exerted; uncus moderately long, curved, beneath with an upwards-curved remotely-divergent process from base meeting it again at apex. Posterior tibiæ with outer spurs four-fifths of inner. Fore wings with veins 8 and 9 stalked, 10 approximated to 9 towards base, 11 moderate. Hind wings with vein 7 out of 6 near origin, anastomosing with 8 to one-third.

Schænobius imparellus, Meyr.

Schænobius imparellus, Meyr., Proc. Linn. Soc. N. S. W., 1878, 176.

Gayndah, Queensland; Sydney, New South Wales; locally common in March.

SCIRPOPHAGA, Tr.

Forehead vertical. Maxillary palpi moderate, loosely dilated with scales. Labial palpi moderate or rather short, porrected or somewhat ascending, loosely scaled, terminal joint short, partly concealed. Other characters quite as in *Schænobius*.

Scirpophaga patulella, Walk.

Tipanæa patulella, Walk., Tin., 522; *Scirpophaga exsanguis*, Meyr., Proc. Linn. Soc. N. S. W., 1882, 161.

Brisbane, Queensland; Glen Innes (3000 feet) and Sydney, New South Wales; Fernshaw, Victoria; Deloraine and Hobart, Tasmania; Mount Graham, South Australia; very common.

Scirpophaga ochroleuca, Meyr.

Scirpophaga ochroleuca, Meyr., Proc. Linn. Soc. N. S. W., 1882, 162.

Duaringa, Queensland.

OXYCHIROTIDÆ.

Wings linear. Fore wings with veins 7 and 10 both rising from stalk of 8 and 9. Hind wings with vein 7 out of 6, anastomosing with 8, lower median not pectinated. Maxillary palpi triangularly scaled.

OXYCHIROTA, n. g.

Forehead with short cone of scales; ocelli absent; tongue well-developed, slender. Antennae almost as long as fore wings, with angularly projecting scales at joints. Maxillary palpi moderate, porrected, triangularly scaled. Labial palpi moderately long, straight, porrected, roughly haired above and beneath, gradually attenuated. Middle and posterior tibiae with all outer spurs obsolete. Fore wings linear-lanceolate, inner margin with small scale-teeth, cilia $2\frac{1}{2}$; veins 2, 3, 4 very short, 5 from near 4, 6 from middle of short transverse vein, 7 out of stalk of 8 and 9, 8 and 9 long-stalked, 10 out of stalk of 8 and 9 beyond 7, 11 moderate, from near angle, 12 free. Hind wings linear, acute, inner margin with small scale-teeth, cilia 5; veins 2, 3, 4 apparently very short but indistinct, 5 from point with 4, short, transverse vein imperceptible, 7 out of 6, anastomosing with 8 to beyond middle of wing.

This extraordinary genus has exactly the form of wing of a *Gracilaria*, yet its true position admits of no doubt. In repose the wings are extended and appressed to the surface on which the insect is resting, in the attitude of *Eupithecia*. Owing to the small size of the species, and excessive narrowness of the wings, the neuration of the hind wings especially is extremely cramped and hard to make out from the single specimen, but I believe the details given above are correct. Probably in the male the genital uncus will be found to be developed.

Oxychirota paradoxa, n. s.

♀, 11 mm. Head, palpi, thorax, abdomen, and legs ochreous, mixed with whitish. Antennae whitish, annulated with grey. Fore wings linear, slightly dilated beyond middle and attenuated again to apex, acute, about nine times as long as broad; brownish ochreous, with scattered black scales; markings cloudy, obscure, formed by the coalescence of pearly-whitish scales; these form indefinite longitudinal streaks on veins towards base, a broad fascia before middle, a narrow one at two-thirds, and two or three cloudy posterior spots; cilia pale ochreous-greyish, on inner margin with three or four very small teeth of black scales. Hind wings linear, acute; brownish ochreous, mixed with black scales, and with indefinite irregular pearly-white transverse markings; cilia pale ochreous-greyish, with five or six very small teeth of black scales on inner margin.

Sydney, New South Wales; one specimen at rest on a fence in June.

APPENDIX.

The following are additional species and notes since the publication of other families:—

EPIPASCHIADÆ.

CATAMOLA, *Meyr.**Catamola capnopsis*, n. s.

♂, ♀, 17—22 mm. Head, palpi, and antennæ blackish; antennæ of male filiform, ciliations one-half, process rather short, erect. Thorax blackish grey. Abdomen dark grey, segmental margins whitish. Legs blackish, apex of joints whitish. Fore wings triangular, costa gently arched, apex rounded, hind margin obliquely rounded; dark grey, coarsely mixed with black and whitish scales; first line thick, cloudy, blackish, rather irregular, from one-third of costa to beyond one-third of inner margin; a small blackish discal spot before middle; second line thick, cloudy, blackish, followed by a pale line, subdentate, from beyond middle of costa to two-thirds of inner margin, upper half tolerably regularly curved outwards; cilia grey, with a blackish line. Hind wings rather dark grey; in male a faintly indicated paler post-median line towards costa; cilia grey, with a darker line.

Nearest to *C. classota*, with which it agrees in the shorter erect antennal process, which in all the other species is longer and thrown back; but easily separated by the quite different form of the second line, besides the larger size and more blackish colouring.

Mount Kosciusko, New South Wales; five specimens taken in January, at from 4300 to 4700 feet.

CACOZELIA, *Grote.**Cacozelia costigeralis*, Walk.

Pyralis costigeralis, Walk., Trans. Ent. Soc. Lond., 1. (3rd ser.), 121.

♂, 22—23 mm. Head, palpi, antennæ, and thorax blackish; tuft of maxillary palpi ochreous-whitish. Abdomen dark fuscous mixed with ochreous-whitish. Legs black, irrorated with whitish, apex of joints white, posterior tarsi whitish ochreous beneath. Fore wings triangular, costa gently arched, at two-fifths with a hard glandular swelling forming a rounded protuberance, apex

rounded, hind margin rounded, rather oblique; veins 4 and 5 stalked; lower surface with a membranous scaled ridge above vein 6 extending from one-third of length to near two-thirds; fuscous, densely irrorated with black, and with a few fine scattered whitish scales; a very indistinct row of whitish dots in disc at three-fourths parallel to hind margin, and a hind marginal row of whitish dots; cilia grey, towards base dark grey. Hind wings grey-whitish, posteriorly more or less broadly suffused with grey, hind marginal edge dark grey; cilia grey-whitish, becoming dark grey towards base; veins 4 and 5 from a point, 7 and 8 sometimes joined at a point.

Immediately distinguished from the other species of the genus by the structural differences. In this species veins 7 and 8 of the hind wings occur either free or united at a point, a rare form of variability. In view of this inconstancy, I think *Cacozelia* may be held to include all the species of the family which possess the long maxillary pencil of hairs in the male. The glandular costal swelling of this species (similar to that found in some species of *Balanotis*) and membranous discal ridge are probably restricted to the male.

Mount Kosciusko (4000 feet), New South Wales; Hobart, Tasmania; three specimens in January and February.

PYRALIDIDÆ.

BALANOTIS, *Meyr.*

Balanotis carinentalis, Walk.

Having obtained specimens for examination, I find that the species has well-developed maxillary palpi and ocelli, both of which are erroneously stated by Lederer to be absent; the genus *Cardamyla*, founded on this species and supposed by Lederer (Walker's characters being useless) to be distinguished by this deficiency, must therefore cease to have any existence. In this species the antennæ of male are very shortly ciliated (one-fifth); veins 4 and 5 are separate in fore wings and hind wings; vein 6 of fore wings rises from a point with stalk of 8 and 9; the costa of fore wings has no glandular swelling; all other characters quite as in *Balanotis*.

PERSICOPTERA, *Meyr.*

The antennæ of male are strongly ciliated with fascicles of cilia ($2\frac{1}{2}$).

DRYMIARCHA, n. g.

Forehead with hairs projecting in a rough cone; ocelli present; tongue well developed. Antennæ in male moderately bipectinated. Maxillary palpi obsolete. Labial palpi rather long, straight, porrected, densely scaled, obtuse, above with a dense expansible tuft of scales. Thorax hairy beneath. Abdomen in male with valves moderate, exerted, clothed with long scales; uncus moderate, curved. Fore wings with vein 1 moderately furcate at base, 4 and 5 from very near together, 7 out of stalk of 8 and 9, 8 to below apex, 10 sinuate. Hind wings with veins 4 and 5 almost from a point, 6 and 7 stalked, 8 free, closely approximated to 7 beyond origin.

A very distinct genus, most allied to *Edematophaga*.

Drymiarcha exanthes, n. s.

♂, 29 mm. Head light purple-reddish, mixed with grey-whitish. Palpi dull fuscous-purplish, tuft mixed with grey-whitish, base white. Antennæ grey-whitish. Thorax purple-reddish, on posterior half with a central grey-whitish streak. Abdomen pale ochreous, posteriorly mixed with grey. Legs whitish, anterior tibiæ mixed with grey above. Fore wings triangular, narrow at base, costa nearly straight, somewhat sinuate, apex obtuse, hind margin strongly bowed, rather oblique; pale grey-reddish, lightest towards anal angle; basal third rather dark reddish fuscous, bounded by a slender whitish grey-margined line from one-third of costa to two-fifths of inner margin, angularly bent outwards in middle and less prominently inwards near inner margin; a white dot in disc above middle; a slender white grey-margined line from two-thirds of costa to two-thirds of inner margin, upper portion perpendicular to costa, tolerably straight, below middle acutely angulated inwards to beneath discal spot, thence slightly curved outwards; costa between first and second lines suffused with white; a large ochreous-reddish costal patch beyond second line, margins suffused with fuscous; cilia light fuscous-purplish, basal half grey. Hind wings rather light ochreous-yellow; a moderately broad dark grey hind marginal band, below middle suddenly ceasing, but sending from lower corner a short narrow suffusion inwards towards

base; cilia pale yellow, opposite band with tips and a median line dark grey.

A conspicuous and striking insect.

Sydney, New South Wales; one specimen in August, beaten from *Banksia serrata*.

BOTYDIDÆ.

LEPYRODES, *Gn.*

Forehead flat, oblique; ocelli present; tongue well-developed. Antennæ as long as fore wings, filiform, in male shortly ciliated ($\frac{1}{3}$). Labial palpi short, porrected, with dense projecting scales above and beneath, anteriorly truncate, terminal joint short, filiform. Maxillary palpi short, filiform. Anterior tarsi in male with broad dense tuft of hairs on basal joint beneath; posterior tibiæ with outer spurs nearly equal inner. Abdomen elongate, in male with short slender anal tuft, valves retracted. Fore wings with vein 11 very long, oblique. Hind wings somewhat broader than fore wings; veins 4 and 5 tolerably approximated, 7 out of 6 near origin, anastomosing with 8 to near middle.

The characters of this genus given by Lederer (copying Guenée) are in part erroneous.

LONCHODES, *Gn.*

Forehead rounded, vertical; ocelli present; tongue well-developed. Antennæ five-sixths of fore wings, in male filiform, minutely ciliated ($\frac{1}{4}$). Labial palpi rather short, curved, ascending, 2nd joint with appressed scales, somewhat rough beneath, terminal joint very short, cylindrical. Maxillary palpi absent. Posterior tibiæ with outer spurs half inner. Abdomen very long, anal segment extremely elongate, valves retracted. Fore wings with vein 10 rising out of the stalk of 8 and 9, 11 very oblique. Hind wings as broad as fore wings; veins 4 and 5 approximated at base 7 out of 6 near origin, anastomosing with 8 to near middle.

This genus I believe to be undoubtedly identical with Guenée's *Lonchodes*, founded on two South American species; I have certainly one other species from the South Pacific Islands. Lederer was unacquainted with the genus; the size of the eyes, which he quotes from Guenée, affords no definite character. This genus and the following *Hydriris* are characterised by the maxillary palpi being really absent; they appear to form a

specialised development of the group of *Notarcha* and *Molybdantha*.

Lonchodes mannalis, Walk.

Botys mannusalis, Walk., 726.

I saw the types of this species in the British Museum; I did not examine them, but the species appeared to belong to this genus, and to be distinct from the following.

Lonchodes ceramochra, n. s.

♂, 24—25 mm. Head, palpi, antennæ, thorax, abdomen, and legs pale ochreous; palpi suffused with fuscous. Fore wings elongate-triangular, narrow towards base, costa moderately arched on posterior half, apex rounded, hind margin rounded, rather strongly oblique; rather light ochreous, slightly irrorated with fuscous; extreme costal edge fuscous, costa suffused with fuscous towards base; a cloudy dark fuscous dot beneath costa at one-fifth, and another at one-third; a small quadrate spot unevenly outlined with dark fuscous in disc above and slightly before middle; a slender sharply dentate dark fuscous line from two-thirds of costa to beyond middle of inner margin, irregularly curved outwards, below middle sending a sharp tooth inwards to below discal spot; an irregular dark fuscous hind marginal line; cilia grey-whitish, with a dark fuscous line near base. Hind wings with ground colour, discal spot, posterior and hind marginal lines, and cilia, as in fore wings.

Duaringa, Queensland; two specimens received from Mr. G. Barnard.

HYDRIRIS, n. g.

Forehead tolerably flat, oblique; ocelli present; tongue well-developed. Antennæ five-sixths of fore wings, in male shortly ciliated ($\frac{1}{3}$), with angularly projecting scales at joints. Labial palpi moderate, arched, ascending, 2nd joint with dense broadly projecting scales beneath, terminal joint short, triangularly dilated with scales, obliquely truncate. Maxillary palpi absent. Posterior tibiæ with outer spurs half inner. Abdomen elongate, in male with moderate anal tuft, valves retracted. Fore wings with vein 10 closely approximated to 9 towards base, 11 oblique. Hind wings as broad as fore wings; veins 3, 4, 5 approximated at base, 7 out of 6 near origin, anastomosing with 8 to middle.

Hydriris chalybitis, n. s.

♂, ♀, 16—17 mm. Head, thorax, and abdomen pale ochreous, somewhat mixed with dark fuscous. Palpi dark fuscous, towards base whitish. Antennæ pale ochreous. Legs whitish ochreous, anterior pair suffused with fuscous. Fore wings elongate-triangular, narrow towards base, costa moderately arched on posterior half, apex obtuse, hind margin rounded, rather strongly oblique; light ochreous, irregularly irrorated with fuscous and dark fuscous, between first and second lines clearer and more whitish ochreous except towards costa; base mixed with black and leaden-metallic scales; first line from one-fourth of costa to one-fourth of inner margin, indistinct, dark fuscous, irregularly curved outwards; these discal spots and second line leaden metallic, dark-margined; first spot round, beneath costa before middle; second similar, on submedian fold obliquely before first; third 8-shaped, beyond middle; second line from two-thirds of costa to two-thirds of inner margin, slightly irregular, moderately curved outwards; an oblique apical streak and apical portion of costa and hind margin suffused with rather dark fuscous; cilia pale ochreous, base fuscous. Hind wings pale ochreous, somewhat mixed with fuscous, becoming clearer and more whitish ochreous towards base; a rather thick blackish transverse line very near base, not reaching costa; a dark fuscous dot below costa at one-third, and a blackish sometimes metallic-centred median dot; second line as in fore wings, but indistinct; cilia as in fore wings.

Duaringa, Queensland; several specimens received from Mr. G. Barnard; also occurs in Tonga and the New Hebrides.

GODARA, *Walk.*

My specimens are all females, and I cannot therefore yet give the full characters of this genus; but if separable from *Orobena*, Gn. (which I doubt), it must be by the costal tuft and hairs of the middle legs in the male, since the stalking of veins 4 and 5 in the hind wings is not constant, some specimens having them separate, and others stalked, with intermediate gradations.

Godara comalis, Gn.

Pionea incomalis, Gn., 369, is, I have no doubt, only the female of this species; it varies considerably, the varieties which I have (all from the same place) covering

all the differences of marking given, and the structural differences being sexual characteristics.

SEMIOCEROS, *Meyr.*

Semioceros chrysoryeta, *Meyr.*

I have taken this species also in Ceylon.

HYALOBATHRA, n. g.

Forehead, flat, oblique; ocelli present; tongue well-developed. Antennæ two-thirds of fore wings, in male filiform, moderately ciliated (1). Labial palpi moderate, straight, porrected, with broad rough projecting scales above and beneath, attenuated to apex. Maxillary palpi short, filiform, apex somewhat penicillate. Abdomen in male with valves retracted. Posterior tibiæ with outer spurs half inner. Fore wings with vein 10 very closely approximated to 9, 11 oblique. Hind wings as broad as fore wings; cell very short, veins 3, 4, 5 approximated, 7 out of 6 near origin, anastomosing with 8 to near middle; a small oval perfectly transparent bladder in cell at base (probably in male only).

Allied to *Botys*, but immediately distinguished by the transparent bladder at the base of the hind wings.

Hyalobathra archeleuca, n. s.

♂, 20—21 mm. Head, palpi, antennæ, and thorax light brownish ochreous. Abdomen whitish ochreous, becoming white on sides and beneath. Legs white, above irregularly suffused with fuscous. Fore wings triangular, moderately broad, costa on posterior half moderately arched, apex rectangular, hind margin somewhat bowed, rather oblique; light fuscous, slightly reddish-tinged, along costa more ochreous-tinged; lines slender, blackish, rather indistinct and tending to be interrupted, waved; first from one-fourth of costa to two-fifths of inner margin, curved outwards; second from two-thirds of costa to two-thirds of inner margin, forming a small spot on costa, whence it runs obliquely outwards, in middle rather abruptly curved, and sinuate inwards above inner margin; a small cloudy dark fuscous discal spot in middle; faint indications of a subterminal line; cilia whitish ochreous, with a sharply marked dark ferruginous basal line. Hind wings pale fuscous, slightly reddish-tinged; costa broadly and inner margin more narrowly suffused with pure white; a tolerably distinct waved dark fuscous line at three-fourths, parallel to hind margin,

with an abrupt triangular indentation below middle; cilia as in fore wings.

Sydney, New South Wales, in September and October; three specimens.

MYRIOTIS, n. g.

Forehead tolerably flat, rather oblique; ocelli present; tongue well-developed. Antennæ three-fourths of fore wings, in male shortly bipectinated, pectinations rather thick, flattened, clothed terminally with rather long cilia. Labial palpi rather long, straight, porrected, clothed with dense projecting scales above and beneath, somewhat attenuated towards apex, terminal joint concealed. Maxillary palpi short, terminally dilated with dense scales. Thorax posteriorly hairy. Abdomen in male with moderate anal tuft, valves small, exerted, scaled. Posterior tibiæ with outer spurs half inner. Fore wings with vein 10 approximated to 9, 11 moderately oblique. Hind wings as broad as fore wings; veins 3, 4, 5 somewhat approximated, 7 out of 6 near origin, anastomosing with 8 to middle.

Near to the preceding, but specially characterised by the pectinated antennæ.

Myriotis ptoalis, Walk.

Botys ptoalis, Walk., 728; *Osiriaca inturbidalis*, ib., Suppl., 1493.

♂, 23 mm. Head, palpi, antennæ, and thorax whitish ochreous; sides of palpi and shoulders tinged with fuscous. Abdomen whitish ochreous, yellowish-tinged. Legs whitish, anterior femora dull carmine-reddish, anterior tibiæ and middle femora dark fuscous. Fore wings triangular, moderately broad, costa gently arched, apex round-pointed, hind margin somewhat bowed, oblique; pale brownish ochreous, costa suffused with yellowish ochreous; cilia grey, tips grey-whitish. Hind wings light ochreous-yellow; cilia yellow-whitish, base greyish. Under surface of both fore wings and hind wings with a strong dark fuscous transverse streak from costa towards apex, tolerably parallel to hind margin, reaching half across wing.

Having obtained this species for examination, I find that my conjectural reference to *Euryeron* was quite unwarranted.

Sydney, New South Wales, in September; two specimens.

MECYNA, Gn.

Mecyna rhodochrysa, n. s.

♂, 21 mm. Head and antennæ light greyish ochreous, ciliations one-third. Palpi dark fuscous, beneath white. Thorax grey. Abdomen ochreous-yellow. Legs white, anterior pair banded with dark grey; posterior tibiæ with outer spurs one-third of inner. Fore wings triangular, moderately broad, costa gently arched, apex obtuse, hind margin bowed, rather oblique; fuscous, with bluish reflections; apex and hind margin suffused with pale lilac, mixed with pale bluish metallic scales; a very large quadrate bright yellow blotch, extending on inner margin from before middle to near anal angle, upper edge rather near and tolerably parallel to costa, anterior and posterior sides rather broadly margined with dull crimson, tolerably straight, upper edge marked with two small fuscous spots, and lower edge with two cloudy crimson dots; a sinuate cloudy dark fuscous line from three-fourths of costa to middle of posterior edge of yellow blotch; a row of small dark fuscous spots on hind margin; cilia deep yellow, tips lighter. Hind wings and cilia unicolorous ochreous-yellow.

A beautiful and very distinct species; I think the bright colouring is adapted to the flowers of the *Loranthus*.

Larva 16-legged, cylindrical, tapering posteriorly; claret-coloured, spiracular area brighter; segmental divisions pale yellowish-rosy; spots fuscous; head pale reddish brown, reticulated with darker; 2nd segment with a pale reddish brown bisected dorsal plate; anal plate pale reddish brown, anterior half dark brown. Feeds between the cuticles of leaves of *Loranthus* (*Loranthaceæ*), usually towards the tip, which gradually curls back to form a kind of shelter; sometimes the tips of two leaves are drawn together; the refuse is accumulated in a mass above the withered part of the leaf. Pupa in an oval cocoon amongst this refuse. These larvæ were discovered by Mr. Gervase F. Mathew, R.N., from whose notes the above description is taken.

Sydney, New South Wales; three specimens bred in October from larvæ found full-fed early in the same month. The imago is probably very retired in habits.

MYRIOSTEPHES, *Meyr.**Myriostephes heliamma*, n. s.

♂, ♀, 16—17 mm. Head, palpi, antennæ, thorax, and abdomen deep yellow; a whitish line on margins of eyes; antennæ in male shortly ciliated, without projecting scales at joints; palpi white at base beneath. Legs ochreous-whitish, anterior pair yellowish above. Fore wings triangular, costa slightly sinuate, posteriorly gently arched, apex obtuse, hind margin somewhat bowed, rather oblique; deep yellow; marking rather light purplish fuscous, spots and second line darker; first line from one-third of costa to two-fifths of inner margin, slender, sinuate; a very small spot beneath costa at two-fifths, and a second beyond middle; second line from two-thirds of costa to two-thirds of inner margin, middle third tolerably evenly curved outwards, preceded by a moderately broad band becoming obsolete on costa and inner margin; a cloudy fascia immediately before hind margin, obsolete at extremities; a dark purplish fuscous hind marginal line; cilia deep yellow, becoming yellow-whitish towards tips. Hind wings yellow, somewhat mixed with grey; a cloudy suffused dark grey fascia from costa beyond middle to hind margin below middle, attenuated to a line beneath, on costa confluent with a suffused dark grey almost marginal fascia, attenuated beneath and reaching only to middle of hind margin; a dark grey hind marginal line; cilia yellowish, with a dark grey line becoming obsolete below middle of hind margin, tips paler.

Not closely allied specifically to *M. matura*, but structurally identical except in the absence of projecting scales on the antennæ of male.

Duaringa, Queensland; two specimens sent by Mr. G. Barnard.

STEREOCOPA, n. g.

Forehead rounded; ocelli present; tongue well-developed. Antennæ three-fourths, in male very shortly ciliated, joints very short, with angularly projecting scales, basal joint swollen. Labial palpi moderate, arched, ascending, 2nd joint appearing very broad through long dense projecting scales beneath, terminal joint almost as long as 2nd, slender, cylindrical, not pointed. Maxillary palpi very short, filiform. Abdomen in male with short anal tuft, valves retracted. Posterior tibiæ with outer spurs half inner. Fore wings with vein 10 approximated to 9 towards base, 11 oblique. Hind wings as broad as fore wings; veins 3, 4, 5 approximated at base,

7 out of 6 near origin, anastomosing with 8 to middle; lower median with a few long hairs towards base.

Allied to *Notarcha* and *Molybdantha*, but characterised by the peculiarly formed palpi, swollen basal joint of antennæ, and hairs of lower median vein.

Stereocopa scoparialis, Walk.

Gabrisa scoparialis, Walk., Suppl., 1266.

♂, ♀, 11—15 mm. Head, palpi, antennæ, thorax, and abdomen whitish ochreous, often mixed with dark fuscous. Legs ochreous-whitish, obscurely banded with fuscous. Fore wings elongate-triangular, costagently arched, apex rounded, hind margin obliquely rounded; whitish ochreous, often suffused with fuscous; lines dark fuscous, starting from small spots on costa; an indistinct line near base; first line before one-third, rather irregular, sometimes thick; a spot on middle of costa, connected with anterior margin of a curved subquadrate pale obscurely dark-margined discal spot; second line from three-fourths of costa to two-thirds of inner margin, indented beneath costa, below middle abruptly curved inwards to beneath discal spot, thence rectangularly bent to inner margin; cilia pale whitish ochreous, basal half chequered with quadrate fuscous spots. Hind wings pale whitish ochreous, more whitish towards base, sometimes mixed with greyish; a cloudy fuscous discal spot; second line fuscous, formed as in fore wings; a fuscous apical suffusion, and a smaller fuscous spot on hind margin below middle; cilia as in fore wings, but less distinctly spotted.

Sydney specimens are much lighter than the others which I possess.

Sydney, New South Wales; Hobart, Tasmania; Mount Lofty, South Australia; six specimens in October and December.

EURYCREON, *Ld.*

Eurycreon homophœa, n. s.

♂, ♀, 15—18 mm. Head, antennæ, thorax, and abdomen light greyish ochreous. Palpi dark fuscous, lower half white. Legs white, anterior pair suffused with dark grey. Fore wings triangular, narrow towards base, costa slightly sinuate, nearly straight, apex rounded, hind margin obliquely rounded; light greyish ochreous; costal edge suffusedly darker towards base; a small grey discal spot, sometimes obsolete; a slender white streak

along costa from beyond middle to near apex; second line blackish, slightly irregular, partially obsolete, proceeding from a small spot on costa at three-fourths towards anal angle, below middle rectangularly bent inwards to beneath discal spot, thence again rectangularly bent to inner margin at two-thirds; cilia ochreous-whitish, with two sharply-marked blackish lines. Hind wings grey, becoming whitish grey towards base; a small dark grey discal spot, sometimes obsolete; an irregularly curved dark grey line from two-thirds of costa to two-thirds of inner margin, rectangularly indented below middle; cilia as in fore wings, but second line less distinct.

Closely allied to *E. familiaris*, from which it is best separated by the hind wings; the fore wings also greyer and somewhat narrower, and characterised by the slender white posterior costal streak.

Bathurst, New South Wales (2300 feet); Deloraine, Tasmania; eight specimens in November. The Tasmanian specimen mentioned under *E. familiaris*, Meyr., belongs to this species, *E. familiaris* having only been found round Sydney.

Note.—To the characters of the genus *Eurycreon* should be added: Lower median vein of hind wings more or less distinctly pectinated towards base.

SCOPARIADÆ.

SCOPARIA, *Hw.*

Scoparia protorthra, n. s.

♂, ♀, 15—17 mm. Head, palpi, and thorax mixed with dark fuscous and white; palpi twice breadth of eyes. Antennæ dark fuscous, ciliations one-fourth. Abdomen whitish ochreous, base of segments greyish. Legs dark fuscous, banded with ochreous-whitish, posterior tibiæ ochreous-whitish. Fore wings elongate-triangular, costa slightly arched, apex rounded, hind margin faintly sinuate, obliquely rounded; pale greyish, mixed and suffused with white, and coarsely irrorated with black; a small black mark from base of costa; some irregular ochreous-yellow scales before first line; first line indistinct, slender, white, posteriorly obscurely black-margined, from one-third of costa to two-fifths of inner margin, indented in middle; orbicular and claviform both small, round, black, detached, claviform rather larger; reniform 8-shaped, white, obscurely blackish-margined; second line slender, white, blackish-margined, faintly waved, indented beneath

costa and above inner margin, preceded on upper two-thirds by a white suffusion extending to reniform; a small ochreous-yellow spot on inner margin immediately beyond second line; subterminal whitish, cloudy, partially obsolete, indented so as nearly to touch second line in middle; a hind marginal row of small cloudy blackish partially confluent spots; cilia whitish, with a black line, tips spotted with grey. Hind wings $1\frac{1}{2}$; very pale whitish grey-yellowish; an indistinct post-median line and hind marginal border obscurely greyer; cilia whitish yellowish, with a grey line.

Nearest to *S. eumeles*, Meyr.; the only allied species with distinctly yellowish cilia of the hind wings are *S. eumeles* and *S. exhibitilis*, of which the former is very distinct by the ochreous suffusion of the fore wings, and the latter by the clear white ground colour and black markings.

Sydney, New South Wales; three specimens on tree-trunks in October and November.

EROTOMANES, Meyr.

Forehead with a short conical projection. Ocelli present, Tongue well-developed. Antennæ somewhat over half fore wings, in male slender, filiform, with short scanty cilia at joints only. Labial palpi long, straight, porrected, with long rough projecting scales above and beneath, attenuated to apex, terminal joint concealed. Maxillary palpi moderate, triangularly dilated with loose scales. Abdomen in male with valves large, densely scaled, connivent; claspers also large, membranous, scaled, conically folded, appressed together inside valves; uncus moderate, curved. Posterior tibiae with outer spurs two-thirds of inner. Fore wings with veins 8 and 9 stalked, 10 tolerably remote from 9, 11 moderate. Hind wings $1\frac{1}{4}$, lower median not pectinated, 1a and 1c loosely pectinated, disc without hairs; 3, 4, 5 closely approximated at base, 7 out of 6 near origin, anastomosing with 8 to one-third.

According to the above characters, which have not been before completely given, this peculiar genus must be placed in the *Scopariade*.

Erotomanes cuspilella, Walk.

Cauza cuspilella, Walk., Suppl., 1771; *Ancrastia mirabilella*, Meyr., Proc. Linn. Soc. N. S. Wales, 1878, 213; *ibid.*, 1879, 333.

Sydney, New South Wales.

CRAMBIDÆ.

THINASOTIA, *Hb.*

It would be possible to separate generically each of the first two additional species here given, on account of well-defined differences in the neuration, but at present I do not think it necessary to do so, regarding them merely as extreme forms of the genus.

Thinasotia termia, n. s.

♂, 22—24 mm. Head, palpi, antennæ, thorax, abdomen, and legs ochreous mixed with white; forehead with long conical projection; tongue extremely short; antennæ strongly bipectinated; legs somewhat irrorated with blackish. Abdominal valves moderate, exerted; uncus stout, terminal half abruptly curved down and attenuated; intromittent organ large, bent, lobed. Fore wings very elongate-triangular, costa gently arched, apex rounded, hind margin obliquely rounded; veins 4 and 5 stalked; ochreous-whitish, irregularly irrorated with ochreous, and with a few scattered black scales; sometimes a cloudy oblique blackish streak in disc at one-fourth; first line from two-fifths of costa to middle of inner margin, white, posteriorly edged by a deep yellow-ochreous line mixed with black, somewhat curved, indented above and below middle; a small clear white somewhat 8-shaped discal spot; second line near and tolerably parallel to hind margin, white, anteriorly edged by a yellow-ochreous line mixed with black, subdentate, indented beneath costa; hind marginal space light fuscous, except a cloudy white dentate marginal line, tending to be connected with second line on veins; a row of cloudy blackish hind marginal dots; cilia light fuscous, mixed with whitish. Hind wings with vein 5 absent (coincident with 4); light fuscous, becoming paler towards base; cilia whitish, with a cloudy fuscous line.

Not close to any other species, but allied to the group of *T. hoplitella*; distinguished from all other species of the genus by the stalking of veins 4 and 5 of the fore wings, and from all except *T. panteucha* by the disappearance of vein 5 of the hind wings.

Duarina, Queensland; several specimens received from Mr. G. Barnard.

Thinasotia pedionoma, n. s.

♂, ♀, 17—24 mm. Head, palpi, and thorax ochreous; a white line above eyes; forehead with a short cone; palpi mixed with dark fuscous towards apex, white internally and at base beneath; patagia mixed with white. Antennæ grey, in male slender, strongly dentate, apex of teeth with moderate ciliations. Abdomen whitish ochreous. Legs fuscous, beneath whitish. Fore wings extremely elongate-triangular, narrow, costa gently arched, apex round-pointed, hind margin slightly rounded, rather strongly oblique; light fuscous; costal half suffused with ochreous towards base, and with whitish between first and second lines; first line indicated by two obscure blackish parallel lines from middle of costa parallel to hind margin, indented above middle, not passing submedian fold, above which both are bent inwards and coalesce to form a short black streak pointing towards base; a small roundish white blackish-margined discal spot; second line indicated by a short whitish streak from costa at five-sixths, preceded and followed by a darker suffusion on costa, and giving rise to an obscure row of blackish dots parallel to hind margin; a narrow white hind marginal fascia, leaving extreme hind marginal edge fuscous, and a marginal row of cloudy black dots; cilia whitish, a line and terminal third fuscous. Hind wings grey-whitish; cilia white, with a faint grey line.

Also a peculiar and distinct species, perhaps allied to the preceding and *T. longipalpella*, but with narrower fore wings than any other of the genus.

Bathurst, New South Wales (2100 feet); Mount Lofty, South Australia; in April, locally common in dry grassy places.

Thinasotia panteucha, n. s.

♂, 27 mm. Head and thorax whitish ochreous mixed with yellowish ochreous; forehead with a large acute conical projection. Antennæ dark fuscous, moderately bipectinated. Palpi ochreous mixed with dark fuscous towards apex, internally and at base beneath white. Abdomen and legs ochreous-whitish, anterior legs suffused with fuscous. Fore wings very elongate-triangular, costa moderately arched on posterior half, apex somewhat rectangular, hind margin nearly straight, oblique; rather light yellow-ochreous; costa and veins marked with ochreous-white streaks, posteriorly obsolete, strongest on margins of cell; a dark fuscous streak above submedian fold from near base to before middle, another beneath

upper margin of cell from one-fourth to transverse vein, re-appearing beyond this as a broader streak continued to costa before apex, an elongate dark fuscous spot beneath origin of vein 2, and interspaces of veins 2—5 dark fuscous on basal half; a clear white streak from apex near hind margin to anal angle, broadest above middle; five short dark fuscous linear streaks from lower part of hind margin between veins; cilia white, with a dark fuscous line, tips fuscous. Hind wings and cilia ochreous-whitish; vein 5 absent (coincident with 4).

Allied to the group of *T. opulentella*, from all of which it is immediately distinguished by the dark fuscous intervenal markings, as well as the pectinated antennæ and absence of vein 5 of the hind wings.

Mount Lofty, South Australia; one specimen received from Mr. E. Guest, who took it in April, together with a second.

Thinasotia megalarcha, n. s.

♂, 33—37 mm. Head, palpi, and thorax shining brownish ochreous; margins of eyes and a slender line on each side of back of thorax not reaching anterior margin white; forehead with a very short conical projection. Antennæ dark fuscous, dentate, moderately ciliated ($\frac{1}{2}$). Abdomen grey, anal tuft ochreous-whitish. Legs dark grey, posterior tibiæ grey-whitish. Fore wings very elongate-triangular, costa gently arched, apex round-pointed, hind margin sinuate, oblique; shining brownish ochreous; a slender white streak immediately beneath costal edge from near base to two-fifths; a straight narrow white streak from beneath extremity of this to apex; a moderate tolerably straight white median streak from base to middle of hind margin, margined with dark fuscous, lower edge somewhat toothed at origin of vein 4; two slender white streaks from near base, first to middle of inner margin, second to anal angle; veins 2—4 marked by obscure white lines; a fine fuscous hind marginal line; cilia light greyish ochreous, somewhat shining, with a white basal streak along upper part of hind margin. Hind wings with veins 4 and 5 short-stalked; grey; cilia light greyish ochreous.

The largest species of the genus; nearest to *T. panselenella*, but with grey hind wings, and without white hind marginal markings above median streak of fore wings.

Mount Kosciusko (5000—6000 feet), New South Wales; two specimens in January.

PHYCIDIDÆ.

LASIOCERA, Meyr.

Lasiocera antelia, n. s.

♂, 18 mm. Head, palpi, antennæ, and thorax dark fuscous; basal half of antennæ roughened with black scales above, but much less strongly than in *L. canilinea*. Abdomen ochreous-yellow. Legs dark fuscous, posterior tibiæ ochreous-yellow above. Fore wings elongate-triangular, narrow at base, costa slightly arched, apex tolerably obtuse, hind margin somewhat oblique, slightly rounded; dark fuscous, somewhat purplish-tinged, somewhat mixed with grey; both lines double, obscurely blacker, distinct but inconspicuous; first from about two-fifths of costa to middle of inner margin, slightly angulated in middle; second from four-fifths of costa to four-fifths of inner margin, sinuate on upper half; cilia dark greyish fuscous, with a darker line. Hind wings orange-yellow, apex of costa very narrowly infuscated; cilia ochreous-yellow, above apex purplish fuscous.

Immediately distinguished from *L. canilinea* and *Pempelia opimella* by the absence of the dark fuscous border of the hind wings.

Ardrossan, South Australia; one specimen.

EUCARPHIA, Hb.

I am now satisfied that *E. cnephælla*, Meyr., is merely an autumnal strongly-marked form of *E. tritalis*, Walk., of which it should therefore be quoted as a synonym.

ETIELLA, Z.

To this genus should be referred *Ampycophora apotomella*, Meyr., which is a true *Etiella*. In the specimen originally examined vein 5 of the fore wings was absent, and also vein 5 of the hind wings, and the palpi appear to have been accidentally injured; but having since obtained further specimens (from Brisbane and New Guinea), I find that in the fore wings vein 5 is normally present, rising from a point with 4, whilst in the hind wings veins 4 and 5 are both present and long-stalked; it is, I think, probable that the original specimen is rather an example of accidental deformity than of normal variation; the palpi are more ascending in

male, porrected in female, but formed as usual in *Etiella*. Under these circumstances the genus *Ampycophora*, Meyr., may be obliterated, as having no existence.

ADDENDUM.

In my second paper (Trans. Ent. Soc. Lond., 1884, 335), the localities for *Proteræca comastis*, Meyr., are accidentally omitted; it should be given as occurring at Castle Hill and Christchurch, New Zealand, on dry grassy hills in January.